

ABSTRACT

A device and method for continuous outer-loop power control on a physical channel which transmits only power control bits and no data while in discontinuous transmission (DTX) mode in a CDMA mobile communication system is disclosed. In the power controlling device according to one aspect of the present invention, a frame error detector detects an error from a frame of predetermined length and generates an error signal indicating whether an error has been generated. A closed-loop power controller compares a threshold with the signal-to-noise ratio (SNR) in each power control group (PCG) in a plurality of periods of the frame and generates power control information according to the comparison result. An outer-loop power controller increases the threshold in order to generate power control information that commands a power increase in response to an error signal indicating the existence of a frame error, and decreases the threshold in order to generate power control information that commands a power decrease in response to an error signal indicating the absence of a frame error. An offset controlling unit, which is connected to the outer-loop power controller, receives gating information about the gated transmission of data in a frame at a predetermined rate, and generates an offset signal, which indicates an offset corresponding to a changed gating rate if the gating rate is changed.